

REMARKS

The Final Office Action of April 19, 2005, has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-64 are canceled without prejudice or disclaimer and claims 65-128 are pending. Applicants have not made any revisions to the claims and are merely providing a copy for the convenience of the Examiner.

Claims 65-128 stand rejected under 35 U.S.C. § 112, second paragraph for allegedly failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse.

Regarding independent claim 65, the Action states that claim 65 is unclear as to which nodes in a network qualify as a “correspondent node.” Applicants submit that there is ample support within Applicants’ original written description for this term. Applicants point to references to “correspondent node” within the specification, particularly p. 10, lines 4-7, with reference to Fig. 1:

Correspondent nodes 4 (CN) send IP datagrams to a mobile node at its home address in the same way it would any other destination. This scheme allows transparent interoperation between mobile nodes 3 and their correspondent nodes 4, but forces all datagrams for a mobile node 3 to be routed through its home agent 1.

Further, Applicants note that the term “correspondent node” is a term that is referenced and defined in the IETF RFC2002 document, entitled, “IP Mobility Support,” by C. Perkins and referenced in Applicants’ original written description at page 6, lines 18-19. Applicants’ include a copy as Appendix A. In particular, section 1.6, paragraph 4 of the IETF RFC2002 reads, “Correspondent Node = A peer with which a mobile node is communicating. A correspondent node may be either mobile or stationary.” This indicates that a correspondent node may either be Mobile IP-enabled or a merely IP-connectivity enabled typical Internet end-station. A correspondent node has one IP address on which it may be reached and may send IP packets to other end-nodes on the Internet that also have an IP address. In comparison to a mobile node, a mobile node has mobile IP protocol implemented and therefore has both a stable mobile node IP address on which it may be reached at all times and a temporary care-of IP address in each

visited subnet. The binding of the two is registered and continuously updated on the home agent through the use of the mobile IP protocol. In one illustrative example, Applicants' original written description identifies four different positions for the location of a correspondent node. (See Applicants' original written description, p. 11, l. 32 to p. 12, l. 16). The positions are CN 4a on the home network, CN 4b on the visited network (same sub-network as the mobile IP node 3), CN 4c on an adjacent subnet which is hosted by the same foreign agent 2 as the visited subnet, and CN 4d on the Internet 6.

As is clearly illustrated above, Applicants submit that there is sufficient basis in the original written description and drawings for use of the term "correspondent node" and the applicable nodes in a network that may qualify.

The Action continues stating, "it is unclear what a 'Correspondent Node' forwarding datagrams without any 'awareness of the Mobile IP protocol' without utilizing label or tag switching means." Applicants submit that there is support in Applicants' original written description and drawings again for these features. For example, Applicants' original written description states that for RFC2002 Mobile IP, the "Correspondent nodes 4 (CN) send IP datagrams to a mobile node at its home address in the same way it would with any other destination." (Applicants' original written description, p. 10, ll. 4-5). The mobile IP procedure to hide the temporary care-of IP address for the correspondent node is explained in Applicants' original written description as well. (See p. 2, l. 32 to p. 4, l. 9). The cited portion of Applicants' original written description describes how in order for a correspondent node to reach a mobile node without having knowledge of the visited subset of the mobile node, the home agent will receive the datagram destined to the stable address of the mobile node and send it on to the mobile node using an IP tunnel with the outer destination IP address equal to the temporary IP address of the mobile node. IETF RFC2002 further allows for the addition of a foreign agent in the visited subnet. Under such a situation, the foreign agent sends its IP address on the visited subnet to the home agent as the temporary mobile node IP address and the IP tunnel will be between the home agent and the foreign agent only, while the communication between the mobile node and the foreign agent relies on the link layer protocol address, e.g., MAC address in case of Ethernet.

As explained in Applicants' original written description, datagrams sent from the correspondent node at position CN 4a and CN 4d are routed via the home agent, while datagrams sent from the correspondent nodes CN 4b and CN 4c are routed directly towards the foreign agent. (Applicants' original written description, p. 11, l. 32 to p. 12, l. 16). In particular, “[t]his static route 3' favors a direct route to the visited subnetwork 8 for the mobile node 3 IP address, for traffic from the correspondent node 4b and 4c.” (Applicants' original written description, p. 12, ll. 12-13). Datagrams for the different correspondent node positions are not dependent on any changes in the correspondent node. The correspondent node is always sending packets towards the stable mobile node IP address. The difference occurs in the publication of a route (mobile node associated to nexthop IP address) for the mobile node IP address from the foreign agent (nexthop address) into the routing infrastructure. From the definition of correspondent node, it is an endpoint on the Internet that initiates sending of datagrams rather than a router that is forwarding datagrams.

The Action also indicates that, “it is unclear how a datagram can be forwarded from a node to a destination mobile IP node without being aware of the destination address, which is part of the Mobile IP protocol.” (Action, p. 2). Again, Applicants submit that there is ample support from Applicants' original written description and drawings. First, Applicants assume that the Action referring to a “node” is in fact referring to a correspondent node. A correspondent node is aware of the stable IP destination address of the mobile node and sends datagrams to that address. Once difference with respect to mobile IP RFC2002 procedures for correspondent node positions CN 4b and CN 4c is that the foreign agent (and in the case of co-located care-of-address mode, the local router in the visited network) receive its routing tables updated with a new routing entry with a lower cost (i.e., more preferred) than the one published by the home agent for the stable mobile node destination IP address. This new routing entry is for the same mobile node stable destination IP address but with a next hop set to the interface of the foreign agent (or router) to which the mobile node is visiting.

As is clearly provided above, Applicants submit that there is sufficient basis in the original written description and drawings for use of the term “correspondent node” and the applicable nodes in a network that may qualify in addition to the features and aspects of the

claims to overcome the rejection under 35 U.S.C. 112, second paragraph. Applicants respectfully request withdrawal of the present rejection for at least these reasons.

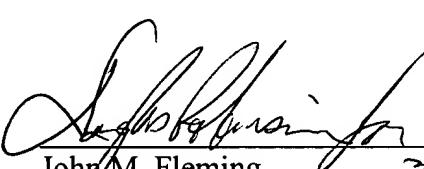
CONCLUSION

Applicants submit that claims 65-128 address the above stated rejections and are now in proper condition for allowance. Should the Examiner believe that further discussion and/or amendment would be helpful, the Examiner is respectfully invited to telephone Applicants' undersigned representative at the number listed below. Applicants hereby petition for any extensions of time which may be required, except for payment of the issue fee, and the Commissioner is authorized to charge to deposit account number 19-0733 any fees necessary to maintain the pendency of the present application.

Respectfully submitted,

Dated: October 19, 2005

BANNER & WITCOFF, LTD.
1001 G Street, N.W.
Washington, D.C. 20001-4597
Tel: (202) 824-3000
Fax: (202) 824-3001

By: 
John M. Fleming 32, 751
Registration No. 56,536

JMF